SUPREMA

RealScan-G1
User Manual

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1. Basic Specifications

1-1. General Information

- Scans single flat fingerprint images.
- High-quality image scanning regardless of states of finger.
- Automatically segments when scanning a flat.
- Prevents external light, halo effect, and ghost images.
- Blue LED indicator
- USB 2.0 transmits data and supplies power.
- For use only with UL Listed I.T.E computer
- Input Power : 5VDC / 500mA

1-2. Certificate

- FCC Statement

  This device has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

  Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operated the equipment under FCC rules.

1-3. Safety Notes

- Do not dismantle or alter this device. Electric shock or damage may occur. If the device was intentionally dismantled or altered by the user, repair services will not be provided.
- Do not use this device in places where flammable or explosive gas may be in the air. A fire or explosion may occur.
- If there is water or foreign matter inside the device, USB cables and contact the customer support center.
- Do not leave the device in an airtight place (such as inside a vehicle), and keep the device away from heat or direct sunlight. The device's exterior or components may be affected.
- Sharp changes in temperature can generate moisture within the device and can result in poor performance. Idle period is recommended after substantial changes in temperature.

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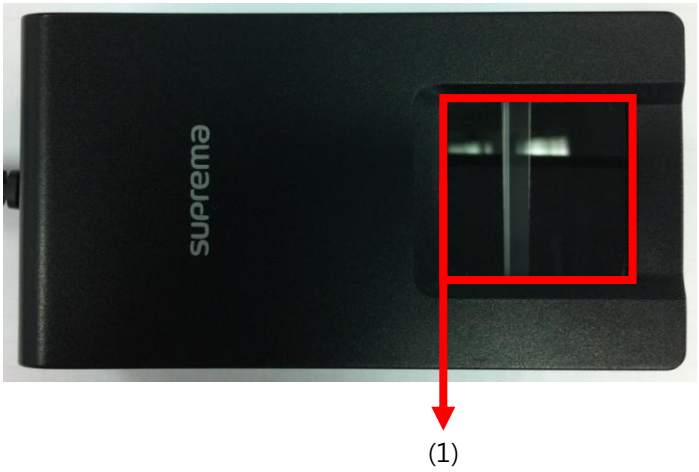
1. Basic Specifications

1-4. Device Parts

Device Case	Software CD(Optional)

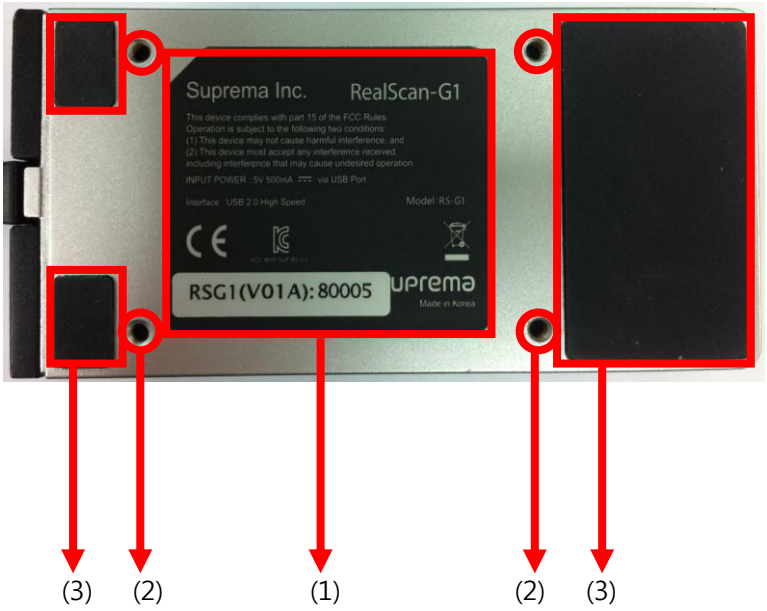
2. Exterior and Cable

2-1. Top View



(1) Scanning Window
- Area for scanning user's fingerprints
- Blue LED indicator inside scanning window

2-2. Rear View



(1) Device label showing basic information including serial number of the device
(2) 4-M3 taps for mounting external bracket
(3) Rubber pads for anti-slippage

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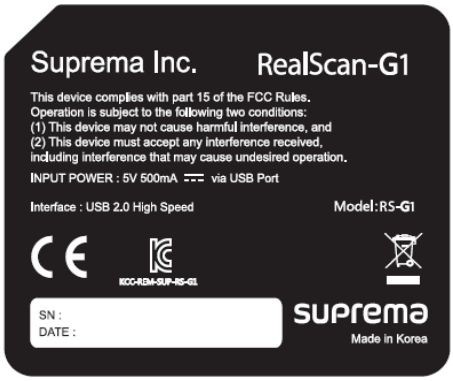
2. Exterior and Cable

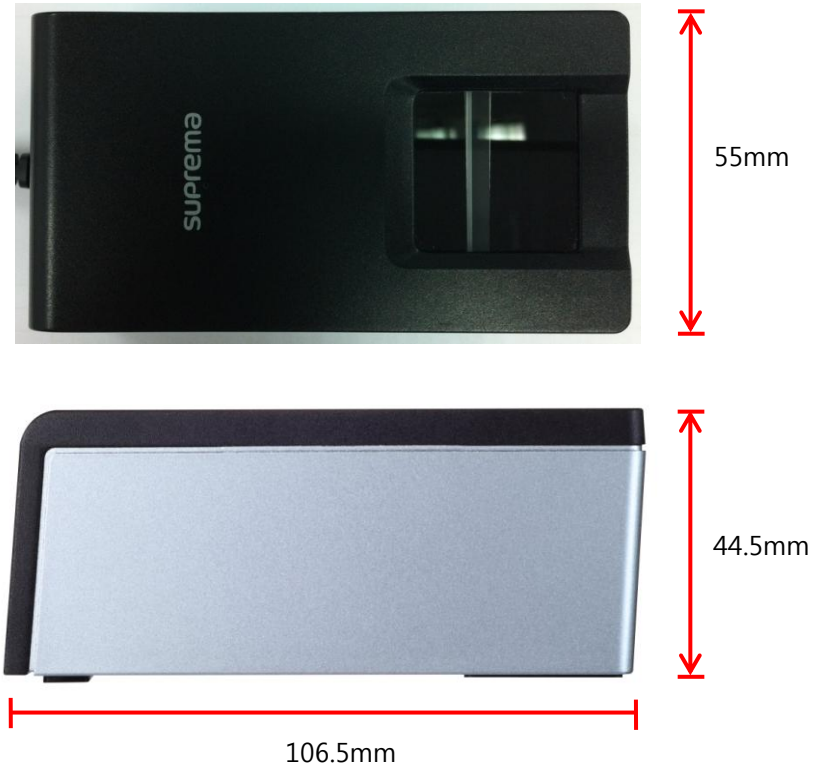
2-3. Device Label


Suprema Inc.
RealScan-G1
This device complies with part 15 of the FCC Rules.
Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received,
including interference that may cause undesired operation.
INPUT POWER : 5V 500mA ⎓ via USB Port
Interface : USB 2.0 High Speed
Model:RS-G1
SN :
DATE :
suprema
Made in Korea

Device Label

- Includes interface, power specifications, certification markings, and device number.

2-4. Device Exterior



- Device Dimensions : 106.5mm(L) * 55mm(W) * 44.5mm(H)
- Device Weight : 0.18Kg (including cable)

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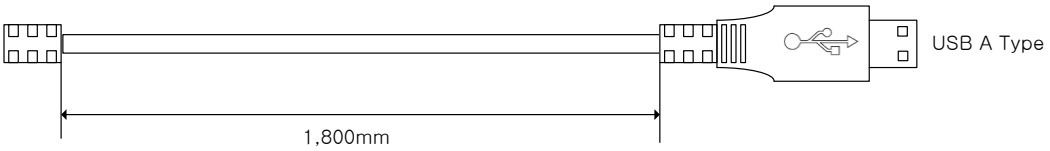
2. Exterior and Cable

2-5 USB Cable



USB Cable

- "A type" USB cable connected to the device through stopper with 1,800mm cable.

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3. Installation

3-1. Minimum PC Requirements

	Desktop(Laptop)
CPU	Pentium4 2.4GHz
HDD	20Gbyte
RAM	512MB
VGA	Memory 64MB or higher(1024*768)
Interface	Support USB2.0 High Speed
OS	Windows XP or higher

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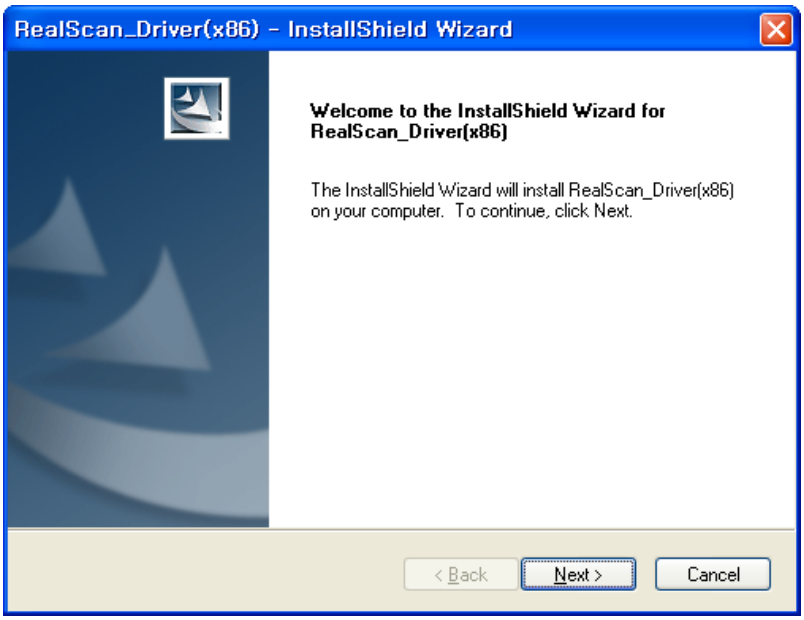
3. Installation

3-2. Device Driver Installation

- Windows XP/VISTA/7

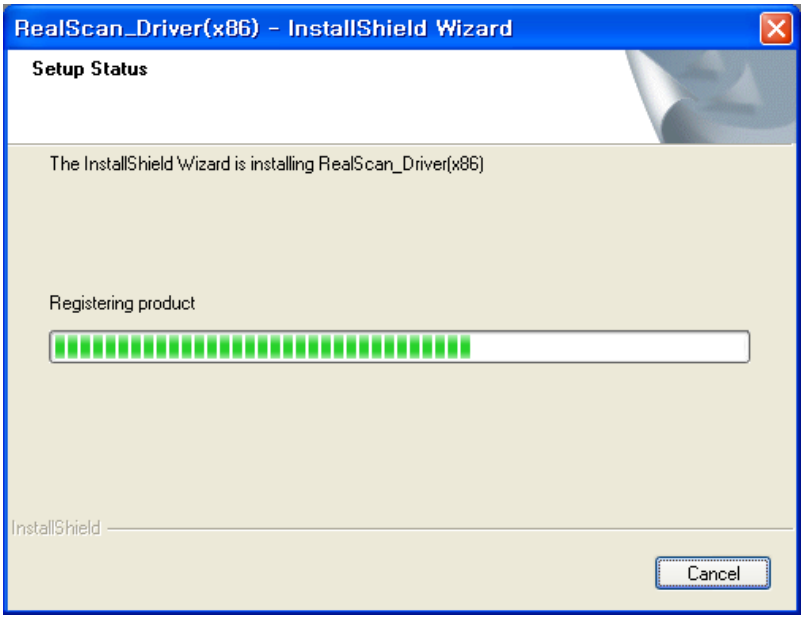

RealScan_Driver(x86) - InstallShield Wizard
Welcome to the InstallShield Wizard for RealScan_Driver(x86)
The InstallShield Wizard will install RealScan_Driver(x86) on your computer. To continue, click Next.
< Back
Next >
Cancel

Driver Installation 1

① Disconnect the device's USB cable to a PC before program installation.

② Click "Next" if the above screen appears after running "RealScan_Driver(x86)-V1.2.0.0.exe".

※ When using 64-bit OS, use "RealScan_Driver(x64)-V1.2.0.0.exe" for driver installation.



Driver Installation 2

③ Device driver is being installed.

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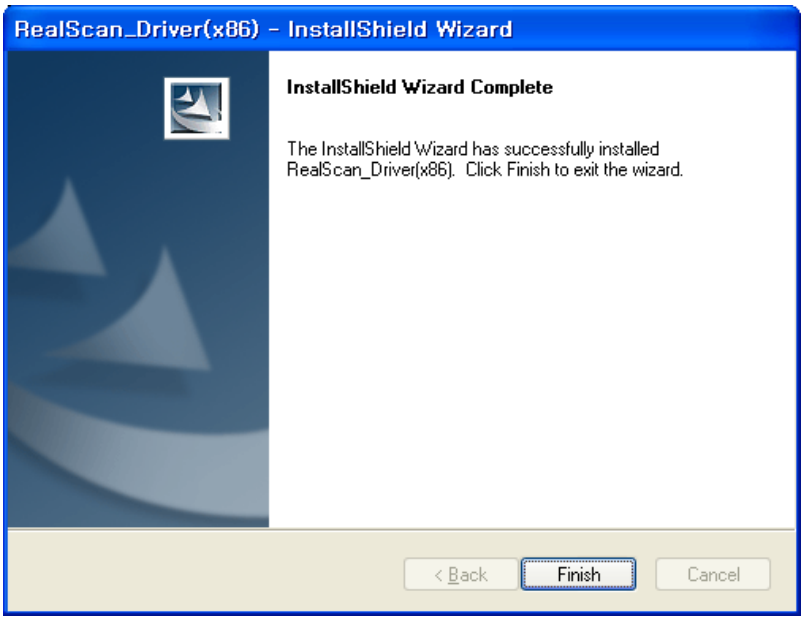
3. Installation


RealScan_Driver(x86) - InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed RealScan_Driver(x86). Click Finish to exit the wizard.
< Back
Finish
Cancel

Driver Installation 3

④ Click "Finish" after driver installation

⑤ Connect the device's USB cable to the PC and check the installation status in Device Manager.

※ Refer to "6. Troubleshooting" if installation is unsuccessful.

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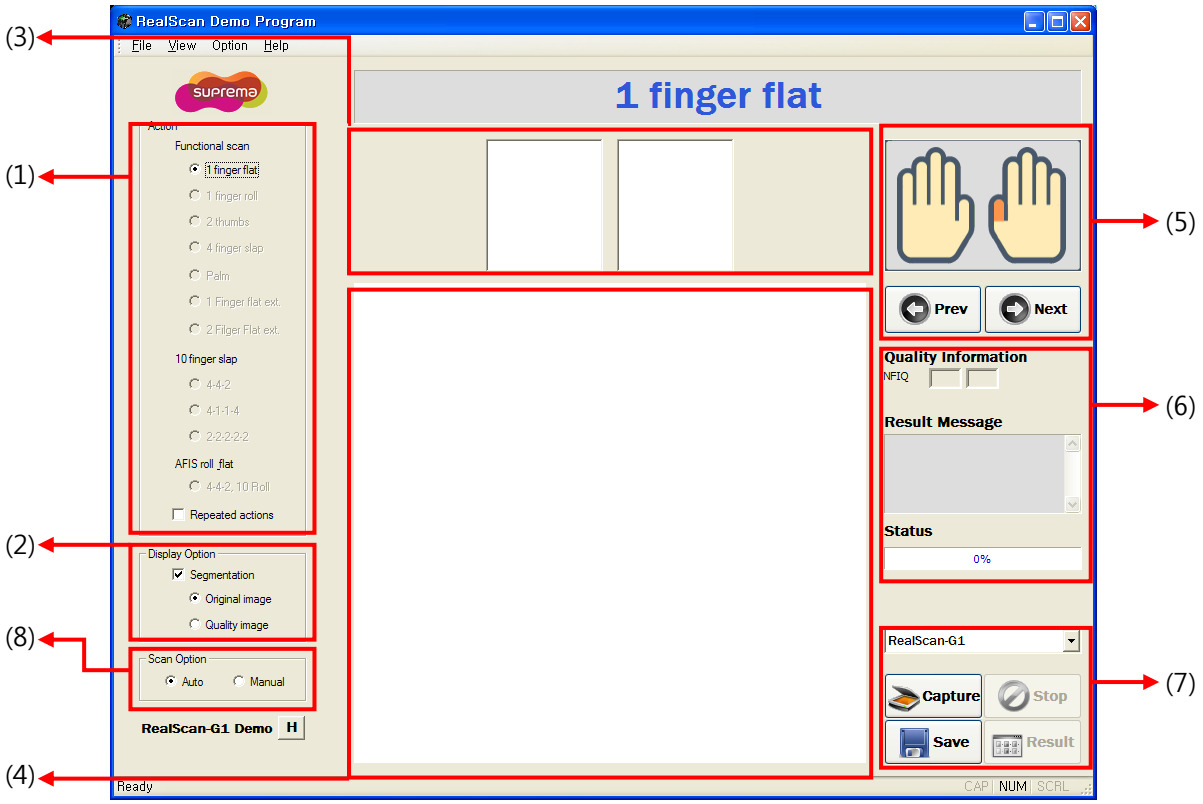
4. Using Software

4-1. Initial Screen



Initial Screen

(1) Fingerprint Scan Mode – Only one scanning method is available.
- 1 finger Flat : Scans single flats.
- Repeated actions : When checked, the same action selected would be repeated until you press "Stop" button.

(2) Display Option
- Displays the scanned fingerprints. (Original image or quality image)

(3) Displays each fingerprint from the original image scanned in area (4) above.

(4) Area where fingerprint was scanned.

(5) Indicates fingers to be scanned. It can be changed by pressing "Prev" or "Next" button.

(6) Scanned fingerprints are scored, and results of the scanned fingerprints are displayed in the message window.

(7) "Capture" and "Stop" buttons for scanning fingerprints, "Save" button to save scanned image and "Result" button to check result fingerprint images.

(8) Scan Option
- Auto Mode : Device automatically detects and saves fingerprint
- Manual Mode : Capture proceeds in a manual manner.

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4-2. Basic Functions

- Display Option

Normal Fingerprint

Check Fingerprint Quality

① Normal(Original Image) : Displays the original fingerprint.

② Quality check (Quality Image) : Displays the quality of the scanned fingerprint. Lighter areas indicate higher quality.

- Indicate

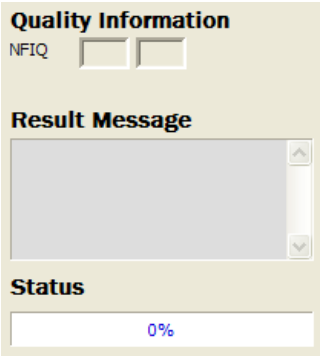
Fingerprint Scanning Order

① Indicates the finger to be scanned.

② "Prev" or "Next" button can be used to change scanning order.

※ "Prev" and "Next" buttons do not work during the preview.

- Quality Information



Fingerprint Information and Message window

① NFIQ : Displays NFIQ results for image quality.

② Result Message : Displays information after scan is completed.

③ Status : Displays scanning progress.

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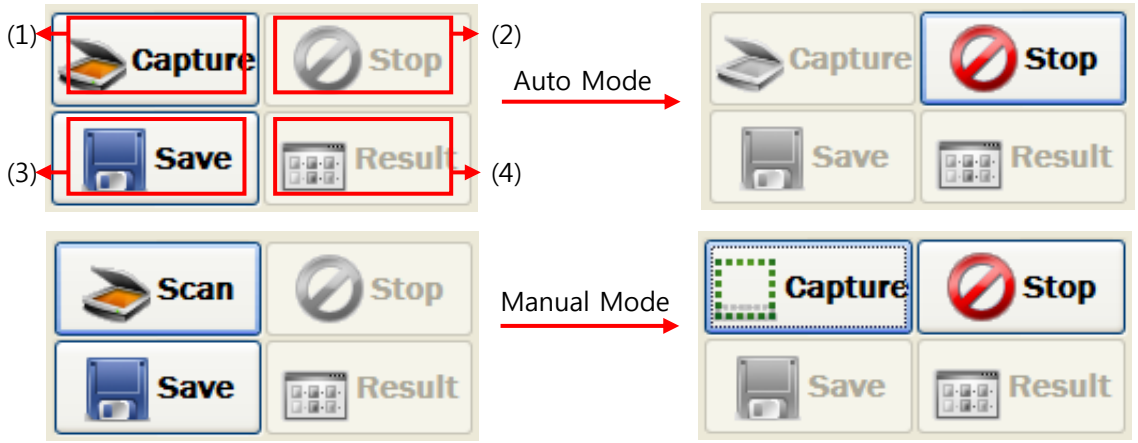
- Button



(1) "Capture" button: Used to preview or start scanning.

(a) Manual – "Capture" button changes into "Scan", and preview is provided. As shown on the right side, the "Scan" button is changed into "Capture" after "Scan" button is pressed. By pressing "Capture" button, scanning will be started.

(b) Auto – "Capture" button is activated as shown above. Scanning will be started by pressing "Capture" button.

(2) "Stop" button: Stops scanning the fingerprint during the preview.

(3) "Save" button: Saves the scanned image as a file.

(4) "Result" button: Shows the scanned image with the related data.

4-3. Scanning Fingerprints Individually

Single Flat Scanning Screen

- Single Flat Scan

① Select "1 Finger Flat" in the Action menu.

② Select a finger to scan using the "Prev" and "Next" buttons at the upper-right of the screen.

③ If the "Scan" button is pressed at the lower-right of the screen, the button changes into "Capture", and then the preview image is shown.

④ Place the finger on the scanning area and press "Capture".

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4-4. Notes on Fingerprint Scanning

Top Scanning

Side Scanning

- Top Scanning: If only the top of the finger is placed on the scanning area, only the top of the finger part will be scanned as shown above.
- Side Scanning: If only the side of the finger is placed on the scanning area, and the center of the finger does not touch the scanner, only the side of the finger part will be scanned as shown above.

Blurred Image

Good Fingerprint Image

- Blurred Image: When applying too much pressure with one's finger to the scanning area, the image may become blurred as shown above.
- To scan a fingerprint successfully, place the finger at the center of the scanning area with reasonable pressure.

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5. Storage and Management

5-1. Prism Maintenance

- Clean the prism using the soft cloth provided with the device.
- If the prism is covered with foreign matter or is dirty due to repeated scanning, clean the prism with the soft cloth.
- Do not use any chemical agents such as wax, benzene, alcohol, thinner, perfume, lubricant, or cleansers.
- If the soft cloth provided with the device is not available, use cloth normally used for cleaning glasses.

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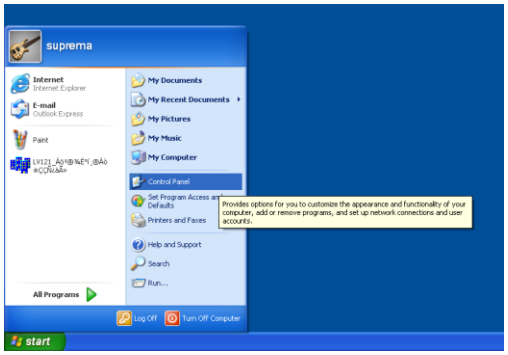
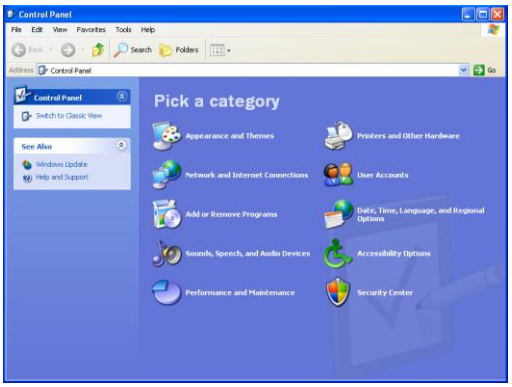
6. Troubleshooting

- Check whether the device is connected. (See below)

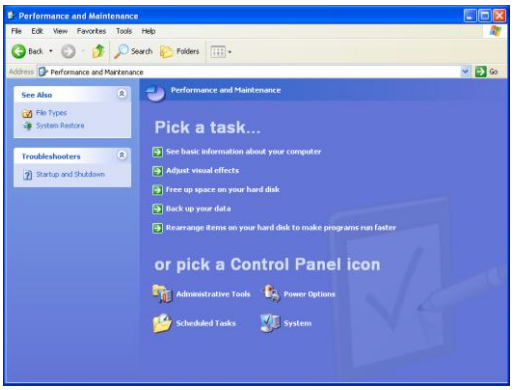
① Windows XP



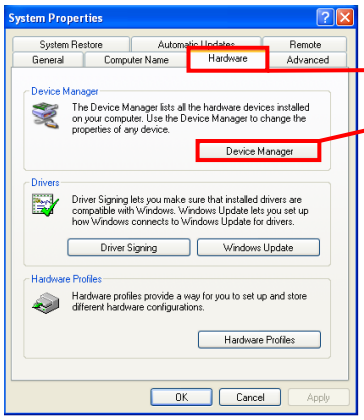
a. Select Start – Control Panel.



b. Double-click "Performance and Maintenance".


Performance and Maintenance
Pick a task...
See basic information about your computer
Adjust visual effects
Free up space on your hard disk
Back up your data
Rearrange items on your hard disk to make programs run faster
or pick a Control Panel icon
Administrative Tools
Power Options
Scheduled Tasks
System

c. Double-click "System".


System Properties
System Restore
Automatic Updates
Remote
General
Computer Name
Hardware
Advanced
Device Manager
The Device Manager lists all the hardware devices installed on your computer. Use the Device Manager to change the properties of any device.
Device Manager
Drivers
Driver Signing lets you make sure that installed drivers are compatible with Windows. Windows Update lets you set up how Windows connects to Windows Update for drivers.
Driver Signing
Windows Update
Hardware Profiles
Hardware profiles provide a way for you to set up and store different hardware configurations.
Hardware Profiles
OK
Cancel
Apply

① d. Select menus as shown to the left.

②

e. Select Device Manager – Universal Serial Bus Controller, and check whether "Suprema RealScan-G1" is connected.

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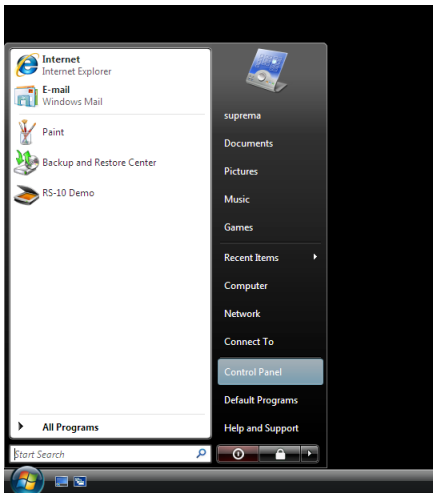
6. Troubleshooting

② Windows Vista

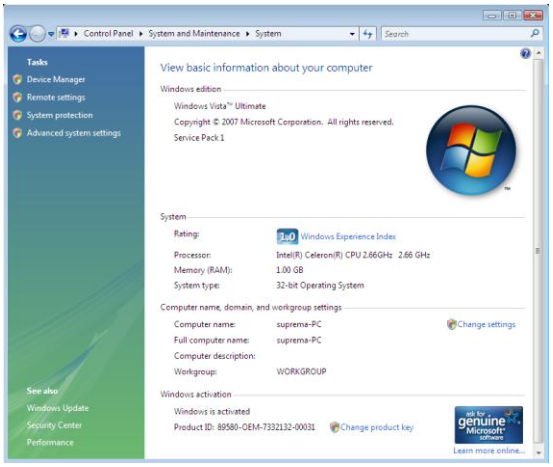


a. Select Start – Control Panel menus.

System and Maintenance ▸ Welcome Center
suprema
Windows Vista™ Ultimate
Intel(R) Celeron(R) CPU 2.66GHz
1.00 GB RAM
Standard VGA Graphics Adapter
Computer Name: SUPREMA-PC
Show more details
welcome
1. Get started with Windows (13)
View computer details
Transfer files and settings
Add new users
Connect to the Internet
What's new in Windows Vista
Personalize Windows
Show all 13 items...
2. Offers from Microsoft (7)
Go online to learn about Windows Live
Go online to find it fast with Windows Live
Go online to help protect your PC with Windows Live
Go online to Windows Marketplace
Go online to connect and share with Windows Live
Go online to find more ways to help protect your PC
Show all 7 items...
Run at startup (Welcome Center can be found in Control Panel, System and Maintenance)

b. Select "System and Maintenance" and double-click "Start Windows".

c. Double-click "View Computer Details."



d. Select "Device Manager".

e. Select Device Manager – Universal Serial Bus Controller, and check whether "Suprema RealScan-G1" is connected.

6. Troubleshooting

- If "Suprema RealScan-G1" is not installed in "Device Manager," do the following :
  ① Check whether the USB cable is connected :
    a. If a USB cable that was not provided with the device is being used, use the USB cable that came with the device.
    b. Check that the USB connector is tightly plugged in.
  ② If the device is connected to the PC :
    a. Unplug the USB cable from the PC, wait five seconds, and plug it in again.
    b. If the device still isn't detected, the PC may not properly recognize the USB. Reboot the PC and check Device Manager.
- If "Suprema RealScan-G1" is detected but still does not function, do the following :
  ① End the program and unplug the USB cable. Plug the USB cable after five seconds and restart the program.

※ If the device does not function even after the above, contact the Customer Support Center.

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7. Customer Support

Suprema Inc.

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TEL : 82-31-710-4502

Fax : 82-31-783-4503

Online Customer Support : sales@supremainc.com

Website : www.supremainc.com

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